Exhibit D

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

BIG GUY'S PINBALL, LLC

       Plaintiff,

v.

JIMMY LIPHAM,

       Defendant.

Case No. 2:14-CV-14185-VAR-RSW

Honorable VICTORIA A. ROBERTS
U.S. District Judge, Presiding

Honorable R. STEVEN WHALEN
U.S. Magistrate Judge, Referral

_____/

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_____/

**AFFIDAVIT OF DONALD WEINGARDEN**

STATE OF MICHIGAN    )
                    ) S.S.
OAKLAND COUNTY    )

    Don Weingarden, being first duly sworn, states under oath the following:

1.    I am an adult resident of Michigan and have personal knowledge of the following facts stated

under oath.  I am competent to testify and, if called to do so, would testify as summarized herein.

**BACKGROUND FACTS**

2.    I am a co-creator of software titled Nucore, which was developed in collaboration with two

other co-creators: Charles Hess and Steven Ellenoff.

3.    Messrs. Hess, Ellenoff and I transferred all of our individual copyright interests in Nucore

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to Big Guy's Pinball, LLC ("BPG").  BGP is a Michigan-based limited liability company with three

members.  Messrs. Hess, Ellenoff and I formed BGP on September 19, 2007 to distribute Nucore

for sale in the public marketplace.  We are each equal 1/3-members of BGP.

### FACTS DESCRIBING NUCORE & BGP's BUSINESS MODEL

4.      Nucore is software which enables presently standardized and commonplace personal

computer hardware to emulate the functions of obsolete, no longer manufactured computer hardware

components originally utilized by Williams Electronic Games, Inc. within its "Pinball 2000" pinball

machines ("WP2K").  WPB2K pinball machines are hybrids: they combine video graphics (projected

downward onto the partially-reflective glass cover of the play field) with traditional all-mechanical

play fields where the steel pinball interacts with bumpers, gates, ramps, flippers and other devices.

Nucore and its related hardware restore and improve function to the original WP2K pinball machines

which otherwise become unusable and valueless when the obsolete components of the now 15-year-

old machines inevitably fail.

5.      Nucore was first made available for sale to the public on March 17, 2009.  It was marketed

and made available on optical compact disks ("CD's", which must be physically shipped to a

purchaser), or as a digital "ISO-file" for remote download via the internet from BGP's website at

"www.bigguyspinball.com".  ISO-files are digital versions of the same software code files stored on

an optical CD.  ISO-files enable software to be transferred electronically rather than requiring that

a CD containing the software be physically shipped to the end user.  Downloaded ISO-files can then

be stored by the user on an optical CD, or can be stored and operated directly on the user's computer

using widely available software which emulates the function of physical CD-drive hardware.

6.      BGP's website (www.bigguyspinball.com) is registered in Michigan. Exhibit A. The Nucore

ISO-files are downloadable from BGP's website.   BGP also operates a tournament server located in Michigan which allows Nucore/WPB2K players to store and record their pinball scores, and view other Nucore/WPB2K players' high scores, via their internet connections.

7.      The Nucore software itself can be downloaded as an ISO-file without charge, but is protected against unauthorized use by hardware security keys (within the Nucore software code) which searches for and detects the proper related hardware and stops Nucore from function if that hardware is absent. Sales are handled in this way as BGP's mechanism for protecting against software theft, to discourage copyright infringement, and for ongoing technical support for legitimate purchasers of Nucore and the related hardware.   Those purchasers with authorized hardware compatible with Nucore's security keys may download Nucore as often as necessary - for instance, as a backup to any computer crashes requiring Nucore to be reinstalled, and to be assured they are using the latest upgrades to Nucore as those become available.

### FACTS RELATED TO THE INFRINGEMENT OF NUCORE

8.      BGP's website features an access log which records information about the remote users accessing the server via the internet.   The BGP access log records the date, time, and IP address of the remote user.

9.      On July 6, 2013 at approximately 10:13 p.m., the BGP server activity log recorded a download of the Nucore ISO-files by a remote user using the IP address "98.251.52.68" assigned to him by his internet service provider.

10.     On August 1, 2013, a member (identified by the pseudonym "MasterGeek") of the publicly accessible internet pinball enthusiast forum "Pinside.com" posted the following message notifying other members that -

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> [w]e are pleased to announce a Nucore alternative - for free nonetheless. Pinbox [the name given to the forgoing "Nucore alternative"] builds off of emulation technology to provide an easy replacement option for Pinball 2000 hardware. *** Feel free to head on over and check out our website and download and try the software for yourself! [link provided to www.PlayPinBox.com]

Exhibit B to this affidavit. The link to the web site www.PlayPinBox.com contained a downloadable ISO-file with the "Pinbox" software.

11.     On August 2, 2013, I downloaded the Pinbox ISO-file from Playpinbox.com to investigate. The directory structures and filenames were the same as Nucore except the main executable "Nucore" was renamed to "Pinbox". When I performed a side by side comparison of the binary files named Nucore and Pinbox, they were very few differences.

When the differences were text, "Nucore" was changed to "Pinbox". Any text relating to BGP was changed to Pinbox gaming. When the differences were binary, the program was modified to eliminate the hardware security key.  The screen images with the Nucore logo were changed to say Pinbox. In the Linux directory etc/rc4.d the Nucore startup file named **"S99_exec_nucore"** was left behind **without being renamed**, further proving that Pinbox was really Nucore in disguise.  Finally, the text for the credits screen was modified: all names were removed except for Mastergeek and Steve Ellenoff (the removed credits left a large hole which could not be reduced so it was filled it with blank spaces).

In addition to the forgoing, I searched the Pinbox directories and located the "bash history" file created there when the user downloaded and created this ISO-file.  One of the user's keystroke commands, preserved in a portion of the ISO-file which became "Pinbox", was:

> " **wget http://www.bigguyspinball.com/ISO/nucore_install.iso** "

12.     Two characteristics of the Pinbox creator's keyboard command are important, as is a third

undeniable fact -

(a)     First, the "wget" prefix of that command is a file transfer command which is not routine during a normal visit to a web site like www.bigguyspinball.com through normal searches and links.  In a routine web site visit a "get" command (automatically generated by the user's web browsing software) works behind the scenes (with existing authorizations established by the web site's creators) to download the portions of a web site intended to be publically visible such as images, graphics, text, clickable links to other sites, and files (and portions thereof) intended to be accessible and downloadable by the site's operators.  In contrast, "wget" (specifically, the "w" portion of that command prefix) is a command which must be manually typed by a user.  It is purposefully utilized by a user who knows specifically what he is looking for as a means to narrowly focus *where* that search command is directed to look, and which *specific* ISO-file it is directed retrieve from that location. A "wget" command does not require the use of web browsing software.

(b)     Second, everything following the "wget" prefix of that command reflects the user's intentional targeting of the Nucore installation ISO-file.  Everything that follows the "wget" prefix exists in only one place: BGP's server, located in Michigan.

(c)     Third this "wget" command was recorded in the bash history while the nucore_install.iso was downloaded. The bash history eventually became part of the Pinbox ISO files which were released "www.PlayPinBox.com".  The user who entered this "wget" command failed to find and erase this record from the hidden bash history created at the time he downloaded the Nucore ISO-files from BGP's

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server.   Thus,   the   presence   of   the   "   w g e t

http://www.bigguyspinball.com/ISO/nucore_install.iso " command within Pinbox is

the *fingerprint* proving that Pinbox is really Nucore.

13.      Having discovered within Pinbox the presence of the "wget" command associated with the

Nucore installation ISO-file, I then examined the BGP server activity log to see when "wget"

commands may have been recorded, and from where they originated.  There were only five instances

of the "wget" command recorded by the BGP server activity log:

(a) First -       98.251.52.68 - - [06/Jul/2013:22:13:00 -0400] "GET /**nucore_install.iso**

**HTTP/1.1" 404 640 www.bigguyspinball.com "-" "Wget/1.13.4 (linux-**

**gnu)" "-"**

The first portion of the log entry quoted above ("98.251.52.68") is the downloading user's internet

protocol ("IP") address, assigned to him by his internet service provider.  The second portion of that

log entry, appearing in brackets ("[06/Jul/2013:22:13:00 -0400]"), is the date and time stamp of the

downloading user's visit to BGP's site.  The third portion of that log entry beginning with the GET

command ("GET /nucore_install.iso HTTP/1.1" 404 640 www.bigguyspinball.com ") is the routine

and expected record of a visitor's presence on the BGP web site.  However, the fourth portion of that

log entry beginning with the Wget command (**"Wget/1.13.4 (linux-gnu)"**) (bold emphasis added)

is the manual search command, purposefully entered by the downloading user, searching for and

directing that a particular "1.13.4" file to be downloaded.  More important is that there were no other

uses of the "wget" command recorded by the BGP server activity log between July 1, 2013 and

August 1, 2013 other than this one from IP 98.251.52.68, and the four others in that period

summarized below (also from IP 98.251.52.68).  Also important is that this user, operating from IP

98.251.52.68, is actively targeting the same "Nucore_install.iso" directory which was recorded in

the bash file later released as Pinbox (paragraph 11, above).

> (b) Second -      98.251.52.68  –  [06/Jul/2013:22:13:27  -0400] "GET
> /ISO/**nucore_install.iso** HTTP/1.1" 200 19744768
> www.bigguyspinball.com **"-" "Wget/1.13.4 (linux-gnu)" "-"**

This is a repeat of the first instance of the "wget" command (bold emphasis added), but at

10:13:27p.m., a few minutes following the first instance in paragraph 13(a), above.  Again, the

significance is threefold: (1) whom is performing this purposeful "wget" operation (i.e., the user of

IP 98.251.52.68), (2) what is being accessed (i.e., the same "Nucore_install.iso" directory which was

recorded in the bash file later released as Pinbox (paragraph 11, above)), and (3) when this "wget"

operation was logged (i.e., during the period immediately before release of Pinbox, and when no

other "wget" commands were logged by the BGP server access log).

> (c)    Third -     **168.28.22.142** - - [06/Jun/2013:09:20:55 -0400] "GET /**roms**
> HTTP/1.1" 200 448 www.bigguyspinball.com "-" "**Wget/1.13.4
> (linux-gnu)**" "-"

This is a repeat of the first and second instances of the "wget" command (bold emphasis added).

Again, the significance is threefold: (1) whom is performing the "wget" command (i.e., IP

168.28.22.142), and (2) when this "wget" operation was logged (i.e., the period when no other

"wget" commands were logged, and in the lead up to the release of Pinbox), as in the first two

instances (paragraphs 13(a) and (b), above).  However, his particular instance of the "wget"

command is significant two additional ways which differ from the first two instances.

First, the IP address from which the request was made is different: IP 168.28.22.142.  This

IP is registered to Board of Regents of the *University System of Georgia*. *See* Exhibit C to this

affidavit.  Mr. Lipham is employed by Georgia Gwinnett College, which is a "unit of the *University*

*System of Georgia.*" *See id*.  It appears from this information that Mr. Lipham may have searched

for and downloaded portions of the files needed for his actions from a computer at his workplace.

Second, in this instance the perpetrator is purposefully targeting ROM's from a specific

directory within Nucore.  "ROM" is an acronym for "read-only memory".  In the context of gaming,

ROMs are the digitally-stored images and sound that users see and hear when playing a game.

ROMs are what make the Williams Pinball 2000 game "Star Wars - Episode I" look and sound like

the movie "Star Wars - Episode I" - they are, quite literally, the "Star Wars - Episode I" movie and

music presented in a pinball medium.  Those image and music ROMs were licensed by the creators

of the Star Wars films to Williams Electronic Games, Inc. for use in WPB2K pinball machines, who

in turn licensed those ROMs to Plaintiff BGP for use in Nucore. Those specific ROM files within

Nucore also contained sound library ROMs unique to Nucore, as well as additional files necessary

to the integration of WPB2K and Nucore.  Use of the "wget" command demonstrates that this user

was specifically targeting the ROM files within the Nucore ISO-files, without which Pinbox would

not be "a Nucore alternative *** [or a viable] replacement option for [Williams] Pinball 2000

hardware" as it was boasted to be. Exhibit A.

> (d)     Fourth -     98.251.52.68   - - [07/Jul/2013:19:24:43 -0400] "GET /ISO/**nucore_install.iso**  HTTP/1.1"   200   19744768 www.bigguyspinball.com "-" **"Wget/1.14 (linux-gnu)" "-"**

This instance of the "wget" command occurs on July 7, 2013 at 7:24:43p.m.  Significantly, it again

originates from IP 98.251.52.68 as in all previous instances.  Like the first two instances the user is

targeting the same "Nucore_install.iso" directory which was recorded in the bash file later released

within Pinbox (paragraph 11, above)), and this "wget" operation was logged during the period

immediately before release of Pinbox, and when no other "wget" commands were logged by the BGP

server access log. How this instance differs, and what it demonstrates at a minimum, is that this particular user's searches are persistent and narrowly targeted leading right up to the time that Pinbox was released.

Nucore is based on an older version of an operating system called LINUX than is currently available in its most recent iteration. LINUX is not always "backward compatible" with older versions. The perpetrator originally used the "wget" command to manually search for a Nucore_install.iso file which was compatible with an intermediate version of LINUX (i.e., **"Wget/1.13.4 (linux-gnu)"** in the first three instances of "wget"-based commands). When that search failed to produce a functioning Pinbox the perpetrator returned the next day and used the "wget" command to manually search for a Nucore_install.iso file which was compatible with a newer version of LINUX (i.e., **"Wget/1.14 (linux-gnu)"** in this instance). The difference is version "1.13.4" (intermediate) and "1.14" (newer). He has yet to discover he is going the wrong direction, but this use of the "wget" command demonstrates that this same perpetrator is diligent and methodical in his repeated attempts over several days breathe life into Pinbox as a functioning, albeit disguised, analog to Nucore.

      (e)    Fifth -      98.251.52.68 - - [07/Jul/2013:20:32:26 -0400] "GET /ISO/**nucore_install.iso** HTTP/1.0" 200 19744768 www.bigguyspinball.com "-" **"Wget/1.12 (linux-gnu)" "-"**

This instance of the "wget" command occurs on July 7, 2013 at 8:32:26p.m., just an hour later than the fourth instance (paragraph 13(d), above) where he is searching for an effective version of LINUX to use with the Nucore_install.iso file downloaded from BGP's web site. This instance has the same significant points as the fourth. It demonstrates that, having spent the last hour failing to get Nucore

to operate as Pinbox with newer "1.14" version of LINUX, he returns  to BGP's site and uses the

"wget" command to manually search the Nucore_install.iso directory for a file which instead be

compatible with an *older* version of LINUX (i.e., **"Wget/1.12 (linux-gnu)"** in this instance).  The

difference this time is version "1.14" (newer) vs. version "1.12" (even older than the intermediate

"1.13.4" initially tried).  This was ultimately a move in the right direction, again demonstrating that

this same perpetrator remained diligent and methodical, returning to BGP's Michigan-based server

several times over several days to find the solutions, from within Nucore, needed to make Pinbox

function.

14.     There is a sixth instance of a visit to BGP's website by the user operating from IP

98.251.52.68.  Although it does not involve the use of the "wget" command, it remains significant

for other elements linking Pinbox to Nucore.  On July 5, 2013 at 6:23:56 p.m., BGP's server activity

log recorded the following activity -

> Sixth -        98.251.52.68   -   -   [05/Jul/2013:18:23:56 -0400] "GET /release/**nts.tar.gz** HTTP/1.1" 404 640 **www.bigguyspinball.com** "-" "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_8_4) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/27.0.1453.116 Safari/537.36" "-"

The significance of this record begins with the fact that (a) it is from the same user (i.e., IP

98.251.52.68), on (b) the day before the same perpetrator began his campaign of "wget" commands

to hack the Nucore ISO-files.  Uniquely significant to this record is the bolded text: the file

"**nts.tar.gz**".  The acronym "nts" stands for Network Tournament Server.  The BGP server included

a service where Nucore users could compete against each other in real time.  When the distributor

of Pinbox announced its availability as "a Nucore alternative - for free nonetheless", he also noted

highlighted that Pinbox's

> Features Include: streamlined easy Installation, **working tournament server**, web-based graphical configuration of the system, [a] **jukebox** with network sharing options to scan your network shares for music to play, enhanced graphics rendering pipeline, support for both ArcadeVGA and LCD monitor setups and MORE.
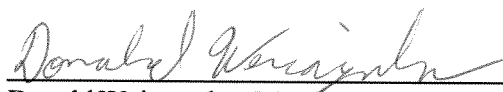
> Feel free to head on over and check out our website and download and try the software for yourself! [link provided to www.PlayPinBox.com]

Exhibit A (Pinbox announcement on PinSide forum, bold emphasis added). Thus, the website PlayPinBox.com was purposefully targeting Nucore with a competing product called Pinbox, using the same tournament server and jukebox features available in Nucore, immediately after having accessed BGP's Nucore tournament server files.
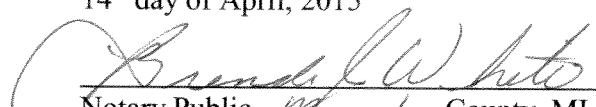
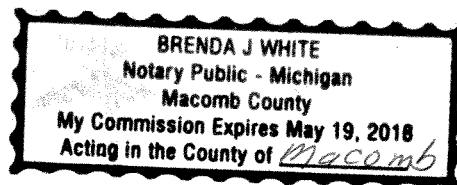### NOTICE TO CEASE COPYRIGHT INFRINGEMENT

15.    A quick search IP 98.251.52.68 on "WhoIs.com" revealed that this particular address was part of a range of IP address assigned to internet service provider Comcast Cable Communications, Inc. On August 3, 2013 I utilized the online copyright infringement reporting procedures established by Comcast to notify the internet service provider that the subscriber it had assigned IP 98.251.52.68 had used that internet access to infringe upon BGP's copyright interests in Nucore. Exhibit B.

17.    Further affiant saeth not.

_Donald Weingarden_
Donald Weingarden, Member - Big Guy's Pinball, LLC
April 14, 2015

Sworn to and subscribed before me on this
14th day of April, 2015

_Brenda White_
Notary Public, _Macomb_ County, MI
My commission expires: _5-19-2018_

> BRENDA J WHITE
> Notary Public - Michigan
> Macomb County
> My Commission Expires May 19, 2018
> Acting in the County of _Macomb_

11

Affidavit Exhibit A

Domain Name: bigguyspinball.com
Registry Domain ID:
Registrar WHOIS Server: whois.1and1.com
Registrar URL: http://1and1.com
Updated Date: 2014-10-31T09:07:09Z
Creation Date: 2008-03-14T00:17:18Z
Registrar Registration Expiration Date: 2016-03-14T00:17:18Z
Registrar: 1&1 Internet AG
Registrar IANA ID: 83
Registrar Abuse Contact Email: abuse@1and1.com
Registrar Abuse Contact Phone: +1.8774612631
Reseller:
Domain Status: clientTransferProhibited https://www.icann.org/epp#clientTransferProhibited
Registry Registrant ID:
Registrant Name: Chuck Hess
Registrant Organization:
Registrant Street: [Redacted - Robert Farr, Attorney for Plaintiffs]
Registrant City: [Redacted - Robert Farr, Attorney for Plaintiffs]
Registrant State/Province: MI
Registrant Postal Code: [Redacted - Robert Farr, Attorney for Plaintiffs]
Registrant Country: US
Registrant Phone: [Redacted - Robert Farr, Attorney for Plaintiffs]
Registrant Phone Ext:
Registrant Fax:
Registrant Fax Ext:
Registrant Email: [Redacted - Robert Farr, Attorney for Plaintiffs]
Registry Admin ID:
Admin Name: Chuck Hess
Admin Organization:
Admin Street: [Redacted - Robert Farr, Attorney for Plaintiffs]
Admin City: [Redacted - Robert Farr, Attorney for Plaintiffs]
Admin State/Province: MI
Admin Postal Code: [Redacted - Robert Farr, Attorney for Plaintiffs]
Admin Country: US
Admin Phone: [Redacted - Robert Farr, Attorney for Plaintiffs]
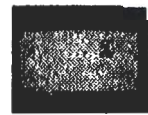Admin Phone Ext:
Admin Fax:
Admin Fax Ext:
Admin Email: [Redacted - Robert Farr, Attorney for Plaintiffs]

Affidavit Exhibit B

■  2  3                                                                    Next »

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**MasterGeek**
Pinhead
161,500  0
Montreal, QC
4

MG

3 MONTHS AGO | # !! |                                    0      10      22    **12**

We are pleased to announce a Nucore alternative - for free nonetheless. Pinbox builds off of emulation technology to provide an easy replacement option for Pinball 2000 hardware. The system works by simply replacing the Pinball 2000 computer entirely with a computer running our operating system. The OS is open source and based on Linux with a broad compatibility spectrum for most hardware setups.

Features include: streamlined easy installation, working tournament server, web-based graphical configuration of the system, jukebox with network sharing options to scan your network shares for music to play, enhanced graphics rendering pipeline, support for both ArcadeVGA and LCD monitor setups and MORE.

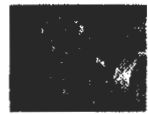Feel free to head over and check out our website and download and try the software for yourself!

-link removed-

- MG

*Post edited by robin : Link removed, please don't link to copyright infringing items on the Pinside. Thanks.*

---

**Mato**
Pinball master
3,263,750  0
Perth
2  60

JRM

3 MONTHS AGO | # !! |                                     0       0       0     **0**

cheers, will have a look

---

**mummite**
Pinball addict
1,588,400  1
Belmont, CA
13  18

mat

3 MONTHS AGO | # !! |                                     0       0       0     **0**

Very cool!

---

**PanzerFreak**
Pinball addict
1,499,950  4
Macomb, MI

3 MONTHS AGO | # !! |                                     0       0       0     **0**

This is awesome. Its things like this that really show just how great and supportive the pinball community is.

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Affidavit Exhibit C

| IP Address | Country | Region | City | ISP |
|---|---|---|---|---|
| 168.28.22.142 | United States | Georgia | Lawrenceville | Board Of Regents Of The University System Of Georgia |

**1000 University Center Lane, Lawrenceville, GA 30043** | 678.407.5000
A bachelor degree-granting unit of the University System of Georgia.
**Ethics and Compliance Reporting Hotline**
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**Georgia Gwinnett**
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X   Y   Z

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Last Name
Lipham

Area

Discipline
[select]

[select]

Search



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**Director of Software Development**
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